1   1-32. (canceled)

1   33. (new). A network device for a communication network, the network device comprising:

2   (a) a database table adapted to:

3   (1) store one or more sets of one or more parameters, each set corresponding to a

4   different identifier; and

5   (2) allow updating of a first set of one or more parameters, the first set

6   corresponding to a first identifier, wherein the updating is based on data packets received from a

7   first transmitter corresponding to the first identifier; and

8   (b) a receiver adapted to:

9   (1) receive a first data packet from the first transmitter, the first data packet

10   comprising a header and a payload;

11   (2) receive a first auxiliary coding corresponding to the first data packet, wherein:

12   the first auxiliary coding identifies the first identifier;

13   (3) recover the first identifier from the first auxiliary coding;

14   (4) retrieve the first set of one or more parameters from the database table based

15   on the first identifier;

16   (5) process at least a portion of the first data packet based on the first set of one or

17   more parameters;

18   (6) update the first set of one or more parameters based on the processing; and

19   (7) provide to the database table, for storage, the updated first set of one or more

20   parameters.

1   34. (new) The network device of claim 33, wherein the communication network is a HomePNA

2   network.

1   35. (new) The network device of claim 33, wherein:

2   the first data packet further comprises a training preamble;

3   the first auxiliary coding is inserted within the training preamble of the first data packet.

1 36. (new) The network device of claim 33, wherein:

2   the first data packet further comprises a training preamble;

3   the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by

4 frequency division;

5   the first auxiliary coding is encoded at a frequency different from a frequency for the first

6 data packet;

7   receipt of the first auxiliary coding overlaps in time with receipt of the training preamble

8 of the first data packet.

1 37. (new) The network device of claim 33, wherein the first auxiliary coding is received before

2 the first data packet is received.

1 38. (new) The network device of claim 33, further comprising a transmitter adapted to:

2   (1) generate a second auxiliary coding for transmittal with a second data packet, wherein:

3   the second auxiliary coding identifies a second identifier;

4   the second identifier identifies the transmitter; and

5   the second auxiliary coding is different from the second data packet;

6   (2) transmit the second auxiliary coding and the second data packet to a second network

7 device.

1 39. (new) The network device of claim 38, wherein:

2   the transmitter comprises a first RF front end; and

3   the transmitter is adapted to transmit both the second auxiliary coding and the second

4 data packet using the first RF front end.

1 40. (new) The network device of claim 38, wherein:

2   the transmitter comprises a first RF front end and a second RF front end;

3   the transmitter is adapted to transmit the second auxiliary coding using the first RF front

4 end; and

5   the transmitter is adapted to transmit the second data packet using the second RF front

6 end.

1   41. (new) The network device of claim 33, wherein the first auxiliary coding comprises five or

2   fewer symbols.

1   42. (new) The network device of claim 33, wherein the first auxiliary coding comprises five or

2   fewer bits.

1   43. (new) The network device of claim 33, wherein the first identifier is a station identifier for

2   the first transmitter.

1   44. (new) The network device of claim 33, wherein:

2   the first data packet header includes a source address for the first transmitter; and

3   the first identifier is not the same as the source address for the first transmitter.

1   45. (new) The network device of claim 33, wherein the first set of one or more parameters

2   comprises at least one of a receiving-equalizer start value, a timing-recovery start value, an

3   automatic-gain-controller start value, and an echo-canceller start value.

1   46. (new) The network device of claim 33, wherein the updating is based on moving averages,

2   from past data packets received from the first transmitter, of one or more of a receiving-equalizer

3   value, a timing-recovery value, an automatic-gain-controller value, and an echo-canceller value.

1   47. (new) The network device of claim 33, wherein:

2   the first auxiliary coding is received as a first set of pulses received substantially

3   immediately before the first data packet; and

4   the first identifier is encoded in the first set of pulses by variable timing intervals between

5   adjacent pulses in the first set of pulses.

1   48. (new) The network device of claim 33, wherein the database table is further adapted to store

2   the first identifier corresponding to each set of one or more parameters.

49. (new) A method for a network device for a communication network, wherein the network device comprises a database table and a receiver, the method comprising:

(1) storing a first set of one or more parameters in the database table, the first set corresponding a first identifier;

(2) receiving a first data packet comprising a header and a payload from a first transmitter;

(3) receiving a first auxiliary coding corresponding to the first data packet, wherein:

the first auxiliary coding identifies the first identifier;

(4) recovering the first identifier from the first auxiliary coding;

(5) retrieving the first set of one or more parameters from the database table based on the first identifier;

(6) processing at least a portion of the first data packet based on the first set of one or more parameters;

(7) updating the first set of one or more parameters based on the processing; and

(8) providing to the database table, for storage, the updated first set of one or more parameters.

50. (new) The method of claim 49, wherein the communication network is a HomePNA network.

51. (new) The method of claim 49, wherein:

the first data packet further comprises a training preamble;

the first auxiliary coding is inserted within the training preamble of the first data packet.

52. (new) The method of claim 49, wherein:

the first data packet further comprises a training preamble;

the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by frequency division;

the first auxiliary coding is encoded at a frequency different from a frequency for the first data packet;

receipt of the first auxiliary coding overlaps in time with receipt of the training preamble of the first data packet.

1   53. (new) The method of claim 49, wherein the first auxiliary coding is received before the first
2   data packet is received.

1   54. (new) The method of claim 49, where the network device further comprises a transmitter, the
2   method further comprising:
3   (1) generating a second auxiliary coding for transmittal with a second data packet,
4   wherein:
5   the second auxiliary coding identifies a second identifier;
6   the second identifier identifies the transmitter; and
7   the second auxiliary coding is different from the second data packet;
8   (2) transmitting the second auxiliary coding and the second data packet to a second
9   network device.

1   55. (new) The method of claim 54, wherein:
2   the transmitter comprises a first RF front end; and
3   the method comprises transmitting both the second auxiliary coding and the second data
4   packet using the first RF front end.

1   56. (new) The method of claim 54, wherein:
2   the transmitter comprises a first RF front end and a second RF front end; and
3   the method comprises:
4   transmitting the second auxiliary coding using the first RF front end; and
5   transmitting the second data packet using the second RF front end.

1   57. (new) The method of claim 49, wherein the first auxiliary coding comprises five or fewer
2   symbols.

1   58. (new) The method of claim 49, wherein the first auxiliary coding comprises five or fewer
2   bits.

59. (new) The method of claim 49, wherein the first identifier is a station identifier for the first transmitter.

60. (new) The method of claim 49, wherein:
    the first data packet header includes a source address for the first transmitter; and
    the first identifier is not the same as the source address for the first transmitter.

61. (new) The method of claim 49, wherein the first set of one or more parameters comprises at least one of a receiving-equalizer start value, a timing-recovery start value, an automatic-gain-controller start value, and an echo-canceller start value.

62. (new) The method of claim 49, wherein the updating is based on moving averages, from past data packets received from the first transmitter, of one or more of a receiving-equalizer value, a timing-recovery value, an automatic-gain-controller value, and an echo-canceller value.

63. (new) The method of claim 49, wherein:
    the first auxiliary coding is received as a first set of pulses received substantially immediately before the first data packet; and
    the first identifier is encoded in the first set of pulses by variable timing intervals between adjacent pulses in the first set of pulses.

64. (new) The method of claim 49, further comprising storing the first identifier in the database table.